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IS MULTIVESSEL PRIMARY PCI ADVISABLE? DIFFERENCES IN CLINICAL OUTCOMES AMONG MEDICARE BENEFICIARIES WITHOUT CARDIOGENIC SHOCK UNDERGOING SINGLE VERSUS MULTI-VESSEL PCI DURING A PRIMARY ST-SEGMENT ELEVATED MYOCARDIAL INFARCTION HOSPITALIZATION IN FISCAL YEAR 2011

Poster Contributions
Hall C
Sunday, March 30, 2014, 9:45 a.m.-10:30 a.m.

Session Title: Acute Coronary Syndromes/AMI
Abstract Category: 36. TCT@ACC-i2: ACS/AMI/Hemodynamics and Pharmacology
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Background: Current ACC/AHA Guidelines recommend intervening on only the culprit vessel during primary PCI for STEMI, except in cardiogenic shock (CS), however a small randomized trial suggests otherwise. This retrospective study evaluates clinical outcomes among Medicare Beneficiaries (MB) without CS undergoing single (SV) versus multi-vessel (MV) PPCI during a hospitalization for a primary diagnosis of STEMI.

Methods: This study uses the fiscal year 2011 MedPAR File to identify all MB who had a hospitalization with a primary diagnosis of STEMI in whom CS was not present on admission and underwent PCI during the hospitalization. MB that underwent multiple trips to the cath lab for PCI during the same hospitalization were excluded. The study sample consisted of 43,865 MB. Clinical outcomes of interest included: acute renal failure (ARF), new onset hemodialysis, any vascular complication (VC) and three mortality measures (in patient, admission to 30 days, and admission to 90 days). Separate multivariate risk models were estimated for each measure of mortality, controlling for age, gender, race and 41 co-morbid conditions.

Results: Approximately 75% of STEMI patients without CS received a SV PCI. The table indicates that MB undergoing SV had significantly lower complication and mortality rates (both observed and risk-adjusted) than MB undergoing MV PCI, except for VC.

Conclusions: This study findings support the current recommendation that STEMI patients without CS undergo culprit vessel PCI only.

	All STEMI	SV PCI with STEMI	MV PCI with STEMI	p Value
MB	43,865	32,980	10,885	
Female %	38.6%	38.9%	37.7%	p=0.020
ARF	6.14%	5.53%	7.99%	p<0.001
Vascular Complication	8.34%	8.80%	8.67%	p=0.153
New Onset Hemodialysis	0.28%	0.22%	0.43%	p<0.001
Observed Mortality In-patient	4.65%	4.12%	6.27%	p<0.001
RA Mortality In-patient	-NA-	4.54%	5.01%	p<0.05
Observed Mortality 30-days	6.53%	6.00%	8.16%	p<0.001
RA Mortality 30-days	-NA-	6.45%	6.79%	p<0.05
Observed Mortality 90-days	8.51%	7.93%	10.26%	p<0.001
RA Mortality 90-days	-NA-	8.45%	8.72%	p<0.05